

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁷ : F16B 37/06, C23C 22/48</p>	<p>A1</p>	<p>(11) International Publication Number: WO 00/34672 (43) International Publication Date: 15 June 2000 (15.06.00)</p>
<p>(21) International Application Number: PCT/US99/28950 (22) International Filing Date: 7 December 1999 (07.12.99) (30) Priority Data: 198 56 613.1 8 December 1998 (08.12.98) DE (71) Applicant (for all designated States except US): EMHART, INC. [US/US]; Drummond Plaza Office Park, 1423 Kirkwood Highway, Newark, DE 19711 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): SCHMITT, Klaus, G. [DE/DE]; Alicenstrasse 22, D-35190 Giessen (DE). KRENGEL, Michael [DE/DE]; Giessenerstrasse 123, D-35396 Giessen (DE). (74) Agents: MURPHY, Edward, D.; The Black & Decker Corporation, 701 E. Joppa Road, Towson, MD 21286 (US) et al.</p>		<p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published With international search report.</p>
<p>(54) Title: IMPROVED WELDABLE ALUMINUM STUD</p> <p>(57) Abstract</p> <p>A weld-on part made of aluminum or an aluminum alloy, such as but not limited to a stud (1), which has a surface which is at least partially provided with a layer (5) which contains a titanium containing material. The stud (1) is treated with a chrome-free passivating solution which imparts corrosion resistance while simultaneously causing a layer (5) of titanium containing material to be formed on at least a portion of the surface of the stud (1). The layer (5) of titanium containing material permits the stud (1) to be satisfactorily welded to a surface, without the occurrence of arc jumping or blowing, in part, by lowering contact resistance during the welding process.</p>		